CITY OF ALBUQUERQUE

November 3, 2015



Asa Nilsson-Weber, P.E. Isaacson & Arfman, PA 128 Monroe St NE Albuquerque, NM 87108

Re: Broadstone Promenade Phase 6

6400 San Pedro Dr. NE Grading and Drainage Plan Permanent CO – Accepted

Engineer's Stamp dated: 5-26-15 (D18D054A)

Certification dated: 10-28-15

Dear Ms. Nilsson-Weber,

Based upon the information provided in your submittal received 10/29/2015, the above referenced Certification received is acceptable for the release of Certificate of Occupancy by Hydrology.

• Make sure swale north of building #2 has positive drainage toward pond at NW corner of building.

If you have any questions, you can contact me at 924-3695 or Totten Elliott at 924-3982.

NM 87103

PO Box 1293

Albuquerque

www.cabq.gov

Sincerely,

Rita Harmon, P.E. Senior Engineer, Planning Department

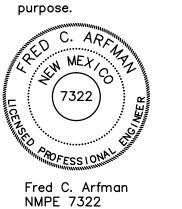
TE/RH email

C:

DRAINAGE CERTIFICATION

I, Fred C. Arfman, NMPE 7322, Genevieve L. Donart NMPE 15088 or Asa Nilsson-Weber, NMPE 17631 of the firm Isaacson & Arfman, P.A., hereby certify that this project has been graded and will drain in substantial compliance with and in accordance with the design intent of the approved plan dated May 26, 2015; Grading And Drainage Plan CG1.1-CG1.4. The record information edited onto the original design document has been obtained by Russ P. Hugg, NMPS 9750, of the firm Surv-Tek, Inc. I further certify that I or someone under my direct supervision have personally visited the project site at various times as documented below and have determined by visual inspection that the survey data provided is representative of actual site conditions and is true and correct to the best of my knowledge and belief. This certification is submitted in support of a request for Permanent Certification of Occupancy for those individual buildings listed below.

The record information presented hereon is not necessarily complete and intended only to verify substantial compliance of the grading and drainage aspects of this project. Those relying on this record document are advised to obtain independent verification of its accuracy before using it for any other



BUILDING NO



Åsa Nilsson-Weber NMPE 17631

PH 1/BLDG 1 Clea Wilnon Weber | 8-17-15/1 PH 2/FIT. BLDG & POOL AREA C- (leffman 08.25-15/2) BLDGS 20&22 Generius L. Dd 9/28/15 BBA PH 4/ BLDG PH 6/ BLDG 2 Qua Wilson Weber 10-28-15

NOTES: PHASE 1

PHASE 3:

SIDEWALK CULVERT NOT CONSTRUCTED. CULVERT SHALL BE CONSTRUCTED PRIOR TO CERTIFICATION OF BUILDING 2. PHASE 2:

2\LOWER/ADJUST STORM DRAIN GRATES TO GRADE, TO BE VERIFIED PRIOR TO CERTIFICATION OF PHASE 3.

3\installation of sidewalk culvert or pvc PIPES TO BE VERIFIED PRIOR TO CERTIFICATION OF PHASE 4.

PHASE 5:

GRADING OF SLOPE TO BE VERIFIED PRIOR TO CERTIFICATION OF PHASE 4. PHASE 4:

COMPLETION OF ITEMS FROM PHASES 3 & 5 TO BE VERIFIED PRIOR TO FINAL CERTIFICATION.

5\INSTALLATION OF 4" PVC PIPES TO BE VERIFIED PRIOR TO FINAL CERTIFICATION. /6\LANDSCAPING TO BE ADJUSTED SUCH THAT A SWALE DIRECTS STORM WATER TO PIPES OR

SIDEWALK CULVERTS AND THAT TOP OF MATERIAL IS AT INVERT OF PIPE OR CULVERT TO ALLOW FOR FLOW THROUGH. UNDER NO CIRCUMSTANCES SHOULD THE ENDS OF PIPES OR CULVERTS BE BURIED. THIS SHALL BE VERIFIED PRIOR TO FINAL CERTIFICATION.

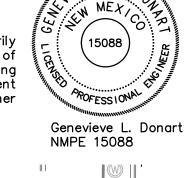
/7\obtain additional as-built spots to allow FOR VERIFICATION OF DRAINAGE PATHS AND SLOPES PRIOR TO FINAL CERTIFICATION.

PHASE 6:

 $\frac{8}{8}$ grade a defined swale/overflow path to BOTTOM OF SIDEWALK CULVERT AND LINE SWALE WITH FRACTURED FACE ROCK. TOP OF ROCK ELEVATION SHALL BE AT INVERT OF CULVERT.

<u>/9\</u>LOWER INLET 0.5'.

CONSTRUCTION OF ITEMS 8 & 9 SHALL BE COMPLETED BEFORE CERTIFICATION OF PHASE 7.



DRAINAGE SHEET KEY

MIDDLE

CG1.3

WEST

CG1.1, CG1.2, CG1.3, CG.14

FOR USE ON:

— — — -75.5 — —

F.F.=XXXX.XX

→78.3±

~~~~~

PHASE 2

♦68.08 **♠**78.3

EAST

CG1.4

LEGEND

PROPOSED CONTOUR - 1' INCREMENT

PROPOSED CONTOUR - 0.5' INCREMENT

EXISTING ELEVATION (\pm) TO MATCH.

PROPOSED STORM DRAIN (SEE CG5.1)

PROPOSED SPOT ELEVATION

PROVIDE SMOOTH TRANSITION.

FINISH FLOOR ELEVATION

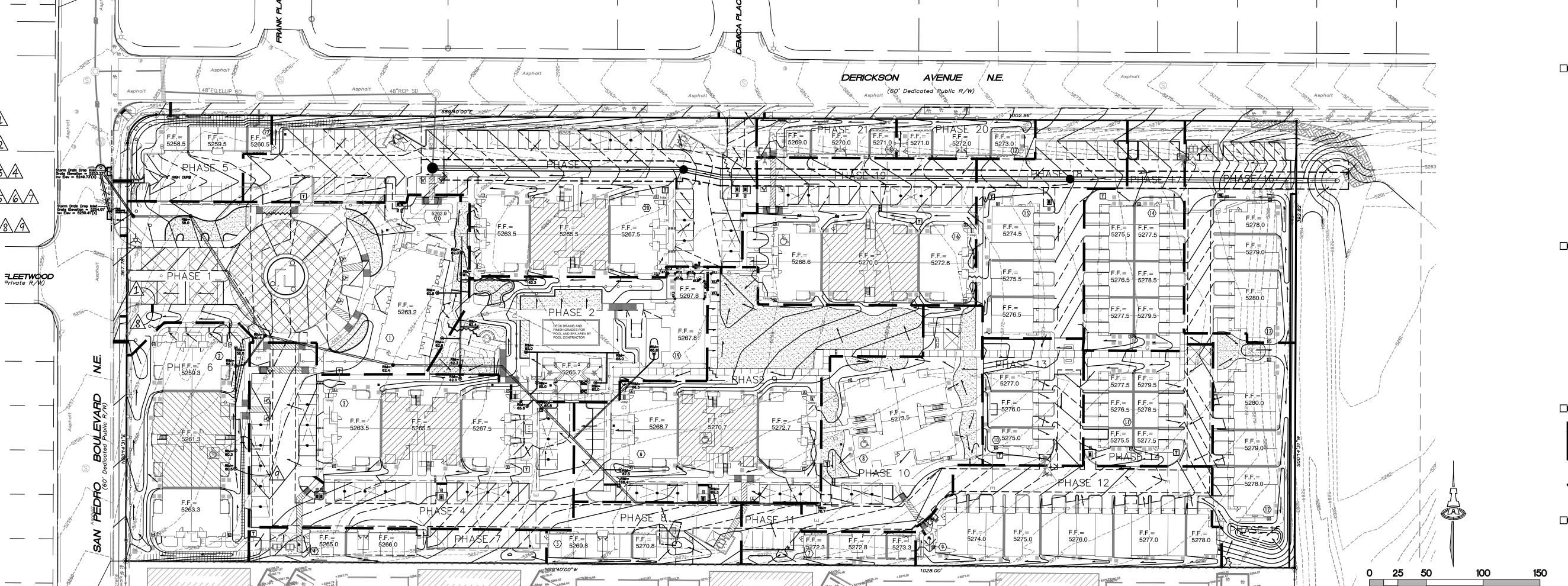
ROCK EROSION CONTROL

BUILDING PHASE LINE

AS-BUILT SPOT ELEVATION

FLOW ARROW

GRADE BREAK



GENERAL NOTES

ENGINEER'S INTENT BEFORE PROCEEDING. COORDINATE WORK WITH SITE PLAN, UTILITY PLAN, PAVING PLAN, AND LANDSCAPE PLAN.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY EXISTING

CONDITIONS PRIOR TO CONSTRUCTION. REPORT ALL DISCREPANCIES

TO THE ARCHITECT / ENGINEER AND VERIFY THE ARCHITECT /

ALL TRASH, DEBRIS, & SURFACE VEGETATION SHALL BE CLEARED AND LEGALLY DISPOSED OF OFFSITE.

PROPOSED SPOT AND CONTOUR ELEVATIONS SHOWN REPRESENT TOP OF FINISH MATERIAL (I.E. TOP OF CONCRETE, TOP OF CONCRETE BUILDING PAD, TOP OF PAVEMENT MATERIAL, TOP OF LANDSCAPING MATERIAL, ETC.). CONTRACTOR SHALL GRADE, COMPACT SUBGRADE AND DETERMINE EARTHWORK ESTIMATES BASED ON ELEVATIONS SHOWN MINUS FINISH MATERIAL THICKNESSES.

EXISTING UTILITY LINES ARE SHOWN IN AN APPROXIMATE MANNER ONLY AND MAY BE INCOMPLETE OR OBSOLETE. SUCH LINES MAY OR MAY NOT EXIST WHERE SHOWN OR NOT SHOWN. CONTRACTOR SHALL CONTACT NM-811 FOR UTILITY LINE SPOTS TWO WORKING DAYS PRIOR TO CONDUCTING SITE FIELD WORK. CONTRACTOR SHALL FIELD VERIFY AND LOCATE ALL UTILITIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY AND PRESERVE ANY AND ALL EXISTING UTILITIES, PIPELINES, AND UNDERGROUND UTILITY LINES.

ALL NEW PAVEMENT SURFACES SHALL BE CONSTRUCTED WITH POSITIVE SLOPE AWAY FROM BUILDINGS. WHERE NEW GRADES ARE SHOWN AS 'MATCH' OR '±', TRANSITIONS SHALL BE SMOOTH AND ADA ACCESSIBLE.

SIDESLOPES > 3:1 SHALL HAVE PERMANENT EROSION CONTROL

IN ENGINEER'S CERTIFICATION FOR CERTIFICATE OF OCCUPANCY. NO SLOPE SHALL BE STEEPER THAN 1:1. ENGINEER RECOMMENDS THAT OWNER INSPECT SITE YEARLY AND AFTER EACH RAINFALL TO IDENTIFY NEW AREAS OF EROSION AND INSTALL ADDITIONAL EROSION PROTECTION AS NEEDED BASED ON

INSTALLED DURING LANDSCAPING PHASE AND WILL NOT BE INCLUDED

ACTUAL OCCURRENCES. PAVEMENT GRADES IN MARKED HANDICAPPED PARKING AREAS SHALL NOT EXCEED 2.0% IN ANY DIRECTION. DESIGN GRADES ARE APPROX. 1.8% TO ALLOW FOR CONSTRUCTION TOLERANCES.

FOR ALL ACCESSIBLE ROUTES, MAXIMUM ALLOWABLE CROSS SLOPE IS 2.0% AND MAXIMUM LONGITUDINAL SLOPE WITHOUT RAMP IS 5.0%. FOLLOW ALL ADA ACCESSIBILITY GUIDELINES OR CITY CODES,

K. IF FIELD GRADE ADJUSTMENTS ARE REQUIRED, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER.

WHICHEVER IS MORE STRINGENT.

ADJUST RIMS OF EXISTING UTILITY FEATURES AS NECESSARY TO MATCH NEW GRADES.

M. UTILITIES IN PAVED AREAS SHALL BE HS-25 TRAFFIC RATED..

N. ALL AREAS DISTURBED BY CONSTRUCTION (OUTSIDE PROPOSED TURF AREA) SHALL BE RESEEDED WITH NATIVE GRASS PER C.O.A.

SPECIFICATIONS SECTION 1012 (FOR SANDY SOILS) OR AS SPECIFIED

ON THE LANDSCAPE PLAN. F. A CURRENT STORMWATER CONTROL PERMIT, INCLUDING AN EROSION SEDIMENT CONTROL PLAN (E.S.C.)FOR EROSION AND SEDIMENT CONTROL IS REQUIRED FOR ALL CONSTRUCTION, DEMOLITION CLEARING, AND GRADING OPERATIONS THAT DISTURB THE SOIL ON ONE ACRE OR MORE OF LAND. OWNER WILL COORDINATE. A

PAVING, BUILDING, OR WORK ORDER PERMIT. POST-CONSTRUCTION MAINTENANCE FOR PRIVATE STORMWATER FACILITIES WILL BE THE RESPONSIBLITY OF THE FACILITIES OWNER. PERIODIC INSPECTION AND CERTIFICATIONS OF THE FACILITIES MAY BE REQUIRED BY THE CITY ENGINEER.

CONTRACTOR'S SUBMITTAL FOR A ROUGH GRADING, GRADING,

CITY-APPROVED ESC PERMIT MUST BE INCLUDED WITH THE

H. STORMWATER CONTROL MEASURES SHOWN ON THIS PLAN ARE REQUIRED TO PROVIDE MANAGEMENT OF 'FIRST FLUSH' (DEFINED AS THE 90TH PERCENTILE STORM EVENT OR 0.44" OF STORMWATER WHICH DISCHARGES DIRECTLY TO A PUBLIC STORM DRAINAGE SYSTEM).

SEE GEOTECHNICAL REPORT BY WESTERN TECHNOLOGIES FOR SOIL ANALYSIS AND SPECIFIC OVEREXCAVATION AND COMPACTION REQUIREMENTS

SEE STRUCTURAL PLANS FOR THICKNESS OF CONCRETE BLDG. SLABS AND SUB-SURFACE BASE COURSE TO ESTABLISH PAD GRADE AT BUILDINGS.

PROPERTY: THE SITE IS A PREVIOUSLY DEVELOPED (MOBILE HOME) PROPERTY LOCATED WITHIN C.O.A. VICINITY MAP D-18. THE SITE IS BOUND TO THE SOUTH BY RECENTLY CONSTRUCTED APARTMENTS, TO THE EAST BY UNDEVELOPED PROPERTY, TO THE WEST BY SAN PEDRO DRIVE NE AND TO THE NORTH BY

PROJECT INFORMATION

PROPOSED IMPROVEMENTS: THE PROPOSED IMPROVEMENTS INCLUDE A 21 BUILDING APARTMENT COMPLEX (INCLUDING GARAGE / CARRIAGE UNITS, OFFICE BLDG., HEALTH FACILITY) WITH ASSOCIATED ASPHALT PAVED DRIVES, PARKING, PEDESTRIAN WALKS AND LANDSCAPING.

LEGAL: TRACT 1, SANTA MONICA PLACE, ALBUQUERQUE. NM AREA: 9.2673 ACRES

BENCHMARK: VERTICAL DATUM IS BASED UPON THE ALBUQUERQUE CONTROL SURVEY BENCHMARK "18-E18", ELEVATION = 5269.166 (NGVD88)

DERICKSON AVENUE NE.

OFF-SITE: DRAINAGE FROM THE UNDEVELOPED TRACTS TO THE EAST (TRACTS 3 AND 4) PREVIOUSLY IMPACTING THIS PROPERTY WILL CONTINUE TO BE DETAINED IN AN EXISTING TEMPORARY DETENTION POND ON TRACT 3. THE PROPOSED 48"Ø PUBLIC STORM DRAIN WILL BE EXTENDED EAST INTO TRACT 3 AND A TEMPORARY STANDPIPE WILL BE CONSTRUCTED WHICH WILL ACCEPT 100% OF THE DETAINED FLOW.

FLOOD HAZARD: THE SUBJECT PROPERTY LIES WITHIN ZONE "X" (AREAS DETERMINED TO BE OUTSIDE 0.2% ANNUAL CHANCE FLOOD PLAIN) IN ACCORDANCE WITH THE NATIONAL FLOOD INSURANCE PROGRAM RATE MAP NO. 35001C0137 F, EFFECTIVE DATE 11-19-03.

SURVEYOR: RUSS P. HUGG, SURV-TEK, INC., (505)897-3366, ALBUQUERQUE, NEW MEXICO.

project before proceeding with this work. U FOR MITPARK 2 20 HOME SITE SANTA MONICA 1003916 PLACE ACRES DR SU-1

PHASING NOTE

CONSTRUCTION SEQUENCE OF BUILDINGS ARE DENOTED ON PLAN

CONSTRUCTED PRIOR TO START OF BUILDING CONSTRUCTION. ALL

CULVERTS, SIDEWALK DRAIN PIPES) SHALL BE CONSTRUCTED WITH

AS PHASES 1-21. ALL STORM DRAIN TRUNK LINES SHALL BE

OTHER DRAINAGE IMPROVEMENTS (AREA INLETS, SIDEWALK

EACH BUILDING PHASE PRIOR TO CERTIFICATION.

25 CH_1 14 PGJ

SCALE 1"=50"

VICINITY MAP

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BROADSTONE

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of Rick

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ISAACSON &

ARFMAN, P.A.

Consulting Engineering Associates

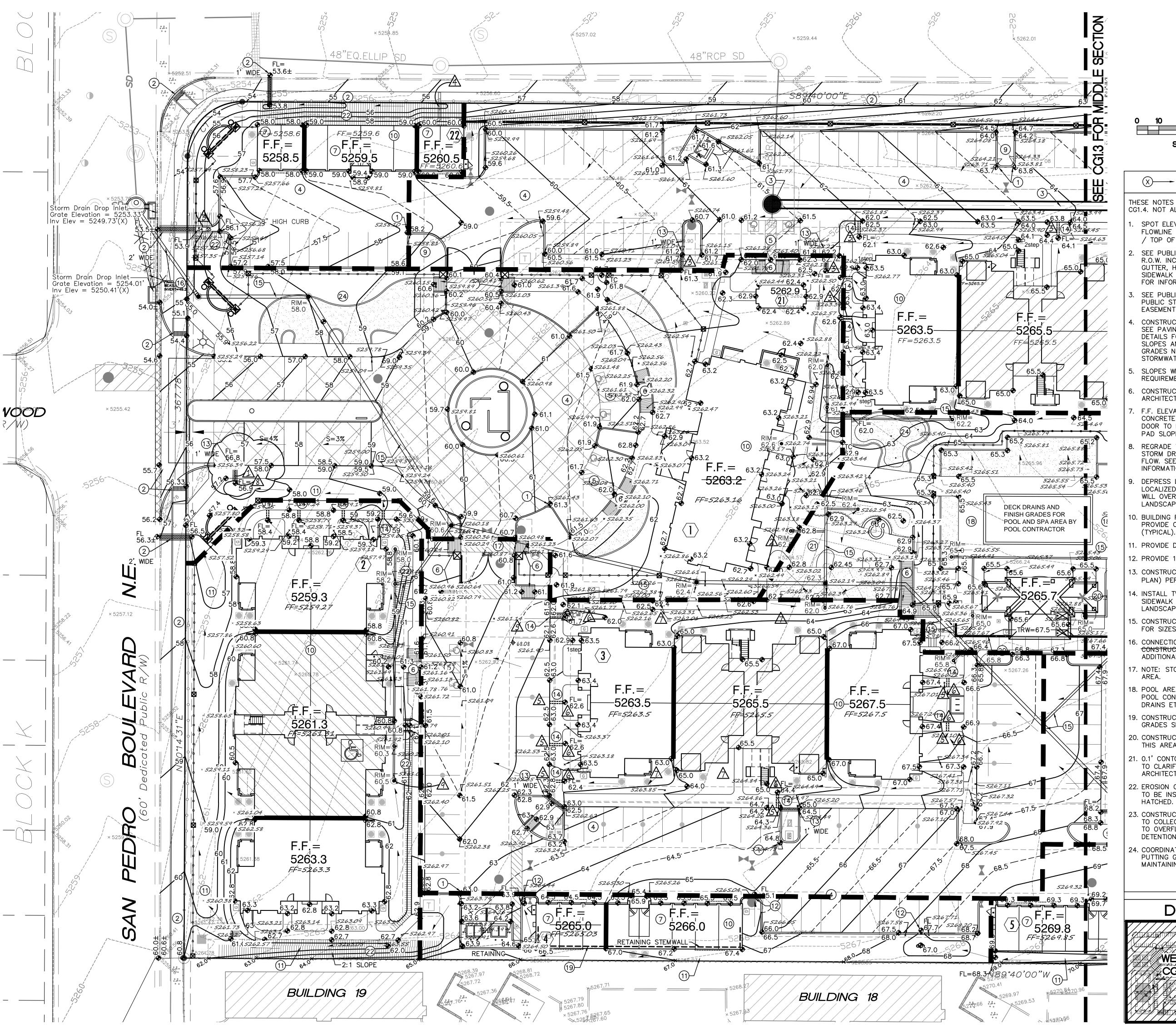
Ph. 505-268-8828 www.iacivil.com 2025 CG 1.1-CERT.dwg Oct 28,2015

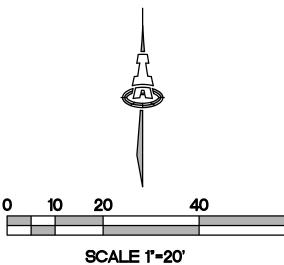
Contractor must verify all dimensions at

CONSTRUCTION SET

DATE: JULY 28, 2014 ORB # 13-220

OVERALL **GRADING AND DRAINAGE PLAN**





KEYED NOTES

THESE NOTES ARE REFERENCED ON SHEETS CG1.2, CG1.3 AND CG1.4. NOT ALL NOTES ARE USED ON EACH SHEET.

- . SPOT ELEVATION LABELS WITHIN GUTTER AREA REPRESENT FLOWLINE UNLESS NOTED. ADD 0.5' TYPICAL FOR TOP OF CURB / TOP OF ADJACENT WALK ELEVATIONS.
- . SEE PUBLIC WORK ORDER DRAWINGS FOR CONSTRUCTION WITHIN R.O.W. INCLUDING NEW ACCESS DRIVES WITH CONCRETE VALLEY GUTTER, HANDICAP RAMPS, PUBLIC SIDEWALKS, COVERED SIDEWALK CULVERTS, CURB OPENINGS ETC. GRADES SHOWN FOR INFORMATION ONLY.
- 3. SEE PUBLIC WORK ORDER DRAWINGS FOR CONSTRUCTION OF PUBLIC STORM SEWER SYSTEM WITHIN PUBLIC DRAINAGE EASEMENT THIS AREA.
- CONSTRUCT PAVING, CURBS, WALKS AT ELEVATIONS SHOWN.
 SEE PAVING PLAN, PAVING DETAILS AND ARCHITECTURAL SITE
 DETAILS FOR ADDITIONAL INFORMATION. NOTE THAT PAVEMENT
 SLOPES AND CROSS—SLOPES VARY THROUGHOUT TO ACHIEVE
 GRADES NECESSARY TO ACHIEVE PEDESTRIAN ACCESS, STREET
 STORMWATER CAPACITIES, PIPE COVERAGE, ETC.
- 5. SLOPES WITHIN HANDICAP PARKING AREAS TO MEET ADA REQUIREMENTS. MAX. SLOPE = 2% IN ANY DIRECTION.
- 6. CONSTRUCT HANDICAP ACCESS RAMP TO ADA STANDARDS. SEE ARCHITECTURAL FOR DETAILS.
- 7. F.F. ELEVATION WITHIN THIS UNIT REFERENCES TOP OF CONCRETE STEP AT BACK OF GARAGE. GRADE AT GARAGE DOOR TO BE 6" BELOW F.F. TO ACCOMMODATE 4" STEP AND PAD SLOPE.
- REGRADE THIS AREA AS SHOWN TO ACCOMMODATE TEMPORARY STORM DRAIN STANDPIPE FOR TRACT 3 AND 4 UNDEVELOPED FLOW. SEE PUBLIC WORK ORDER DRAWINGS FOR ADDITIONAL INFORMATION.
- 9. DEPRESS LANDSCAPING TO 6" (TYPICAL) TO COLLECT LOCALIZED STORMWATER. FLOW IN EXCESS OF AREA CAPACITY WILL OVERFLOW AT LOW POINT. NOTE: DO NOT DEPRESS LANDSCAPING WITHIN 10' OF ANY STRUCTURE.
- 10. BUILDING ROOF DISCHARGE TO BE RELEASED TO ALL SIDES.
 PROVIDE CONCRETE SPLASH BLOCK AT DOWNSPOUT LOCATIONS
- 1. PROVIDE DEFINED SWALE WITHIN LANDSCAPING THIS AREA.
- 12. PROVIDE 1' WIDE OPENING IN CURB TO PASS FLOW.
- 13. CONSTRUCT ON—SITECOVERED SIDEWALK CULVERT (WIDTH PER PLAN) PER C.O.A. STD. DWG. 2236.
- 14. INSTALL TWO 4" DIA. PVC PIPE DRAINS @ 2% SLOPE THROUGH SIDEWALK PER C.O.A. STD. DWG. 2235. GRADE WITHIN LANDSCAPE TO DIRECT FLOW TO OPENING.
- 15. CONSTRUCT PRIVATE STORM DRAIN SYSTEM. SEE SHEET CG5.1 FOR SIZES / SLOPES / INLET INFORMATION / MATERIALS.
- 6. CONNECTION TO PUBLIC STORM SEWER INLET TO BE CONSTRUCTED PER C.O.A. STD. DWG. 2237. SEE CG5.1 FOR ADDITIONAL INFORMATION.
- 7. NOTE: STORM DRAIN CROSSES PUBLIC UTILITY MAINS THIS
- 18. POOL AREA GRADES SHOWN FOR GENERAL INFORMATION ONLY.
 POOL CONTRACTOR TO PROVIDE FINAL DESIGN GRADES / DECK DRAINS ETC.
- 9. CONSTRUCT RETAINING STEMWALL THIS BUILDING TO ACHIEVE GRADES SHOWN. SEE ARCHITECTURAL.
- 20. CONSTRUCT RETAINING WALL TO ACHIEVE GRADE DIFFERENCE THIS AREA. STRUCTURAL / WEEPHOLE DESIGN BY OTHERS.
- 21. 0.1' CONTOURS WITHIN OPEN COURTYARD THIS AREA PROVIDED TO CLARIFY DRAINAGE CONCEPT. COORDINATE WITH LANDSCAPE ARCHITECT.
- 22. EROSION CONTROL (MIN. 6" AVG. DIA. ANGULAR FACED ROCK)
 TO BE INSTALLED ON ALL SIDE SLOPES > 3:1 AND AS SHOWN
 HATCHED.
- 23. CONSTRUCT DEPRESSED LANDSCAPING TO ELEVATIONS SHOWN TO COLLECT SUB—BASIN FLOW. FLOW IN EXCESS OF CAPACITY TO OVERFLOW AT ELEVATION OF 76.5 AS SHOWN. NO DETENTION SHALL OCCUR WITHIN 10' OF ANY STRUCTURE.
- 24. COORDINATE LANDSCAPING FEATURES I.E. MOW CURBS AND PUTTING GREEN WITH LANDSCAPE ARCHITECT WHILE MAINTAINING CLEAR DRAINAGE PATHS SHOWN.

DRAINAGE SHEET KEY

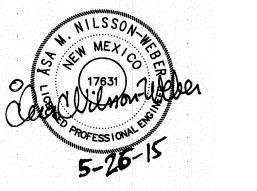
	00
WEST	EAST
CG1.2 CG1.3	CG1.4
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BROADSTONE PROMENADE

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REVISIONS

6/20/14 DESIGN TEAM COORDINATION

 $\sqrt{2}$ 6/20/14 1ST CITY REVIEW $\sqrt{3}$ 7/9/14 2ND CITY REVIEW

7/28/14 DESIGN TEAM COORDINATIO

CONSTRUCTION SET

TE: JULY 28, 2014 ORB # 13-2

CG1.2

WEST GRADING AND DRAINAGE PLAN